MONTANA FISH, WILDLIFE & PARKS - WILDLIFE DIVISION

ENVIRONMENTAL ASSESSMENT OF GRAZING LEASE ON PORTION OF BEARTOOTH WILDLIFE MANAGEMENT AREA
March 2012

In accordance with the Montana Environmental Policy Act, Montana Fish, Wildlife and Parks (FWP) is required to assess the impacts that any proposal or project might have on the natural and human environments. Further, FWP's land lease-out policy, as it pertains to the disposition of interest in Department lands (89-1-209) requires and Environmental Assessment (EA) to be written for all new grazing leases, lease extensions or lease renewals.

A. PROJECT LOCATION

The Beartooth Wildlife Management Area (BTWMA) was purchased by Montana Fish, Wildlife & Parks to provide: (1) year long resident elk and mule deer habitat (2) winter range for migratory elk and mule deer, and (3) public outdoor recreational opportunities, especially hunting. The area was purchased in 1970 from the Nature Conservancy who acquired the area from the Pierce Milton Estate. The purchase price was $738,250.00 (3/4 Pittman-Robertson funds, 1/4 State hunting license dollars). Total acreage of the BTWMA is 32,318 acres.

The BTWMA is located in the west-central portion of Montana in the western edge of the Big Belt Mountains. The largest portion of the BTWMA is situated in Lewis & Clark County; but lands do extend into Cascade County. Helena is approximately 24 air miles to the south-southwest and is 49 miles via roadways. The nearest town to the BTWMA is Wolf Creek, which is 14 miles from the headquarters.

A legal description of the BTWMA lands included in this proposal as follows:

<u>Lewis and Clark County: Polloch Meadows Pasture</u>

T14N R02W, Portions of:
- Sect 9 (E ½ NE ¼ NE ¼)
- Sect 10 (N ½)
- Sect 11 (S ½ N ½)

<u>Lewis and Clark and Cascade Counties: Upper Cottonwood Creek Pasture</u>

T14N R02W, Portions of:
- Sect 12 (E ½)
- Sect 13 (E ½)
- Sect 24 (NE ¼)

T14N R01W, Portions of:
- Sect 18 (NW ¼ SW ¼)

B. PROJECT NEED

Various areas within the BTWMA were seeded to domestic grasses prior to FWP's acquisition of the management area, specifically the "Polloch Meadows" are of Cottonwood Creek. Domestic grass species included Timothy (*Phleum pratense*) and Smooth Brome (*Bromus inermis*). Prior to the 2006-2011 grazing system in Polloch Meadows, these grasses were only palatable at certain growth stages but were unpalatable as

winter forage for deer and elk. Several years of non-use by livestock and minimal use by elk resulted in stands of rank, minimally productive vegetation. The residual plant material that was built up over time limited and/or delayed annual growth. This residual vegetation limited the amount of new (more succulent) plant growth available to deer and elk, especially during spring and fall months. By periodically manipulating these sites through livestock grazing, a range of habitat conditions can be maintained, while ensuring vegetation and soil health goals are met. Other goals are to promote maximum plant production, vigor and nutrient content. Along with increasing the attractiveness of late fall and spring forage to elk, thereby influencing distribution and potentially minimizing depredation to other private lands.

Livestock grazing is one management tool that can be utilized to address these surface litter conditions. Smooth brome can be manipulated through grazing practices to enhance forage conditions, which in turn improves palatability for elk. Upper meadow areas near timber line consist primarily of Rough Fescue, Idaho Fescue (*Festuca idahoensis)* and Bluebunch Wheatgrass (*Agropyron spicatum)*. From 1987-1990, a grazing system in Polloch meadows was attempted, with some success (Table 1). The Polloch Meadows grazing system was revisited and implemented in from 2006-2011 with very good success and results. It is proposed to continue utilizing livestock to enhance forage conditions on the Beartooth.

Table 1. Polloch meadows grazing program summary, 1987-1990.

Year	Practice	# AUMs	Cooperator	Cost/AUM	Total Cost
1987	Graze 8-1/9-15	269	Sieben Livestock	$1.35	$453.94
1988	Rest	0			
1989	Graze 8-1/8-31	316	Sieben Livestock	$1.86	$587.76
1990	Rest	0			

Table 2. BTWMA Polloch Meadows Grazing Treatments 2006 – 2011.

Year	Treatment	AUM's	Grazing Dates	Rental Payment
2006	A	464	5/18 – 6/29	$3,480.00
2007	C	Rest due to fire	Rested	0
2008	A	510	6/3 - 6/30	$3,825.00
2009	B	341.7	7/17-8/19	$2,562.84
2010	C	Rested	Rested	0
2011	A	440.3	5/27 – 6/20	$3,302.00

Approximate Grazing Treatment Dates:
A = Spring Grazing (May 20-July 1)
B = Post Seed Ripe Grazing (July 15-August 31)
C = Complete Rest

C. GOALS

To provide maximum vegetative cover (abundance) and quality plant composition (nutrition/palatability) as related to wildlife needs and soil/watershed protection on elk seasonal ranges associated with the BTWMA. Proposals for grazing of domestic livestock under any circumstances must meet the goals and objectives for management of the BTWMA as listed above.

D. PROJECT SCOPE

It is proposed to continue grazing the 475 acre "Polloch Meadows" area of Cottonwood Creek and add another 400 acre pasture in Upper Cottonwood Creek area of the BTWMA. These pastures are located in the north portion of the BTWMA (Exhibit A). The only watershed included in the proposed grazing area is Cottonwood Creek. The addition of a 400 acre pasture in Upper Cottonwood Creek will alleviate grazing pressure on the adjacent private land riparian areas of Cottonwood Creek and will enhance forage conditions on the BTWMA pasture. This Upper Cottonwood area of the BTWMA is a northerly facing slope which gets

primarily summer and fall use by elk. The area has not been manipulated by livestock and has large amounts of residual decadent cover. Removing this old litter will stimulate regrowth, improving vegetative conditions, vigor and range health. This, in turn, is much more attractive to wildlife species, especially elk. Both pastures will have 2 growing seasons of rest (one full season) per 3 year grazing cycle (Table 3).

A single pasture system 6-year lease renewal is proposed for 475 acres "Polloch Meadows" area of the BTWMA (see Exhibit A and Table 3). Dates of grazing use will be dictated by 1) plant phenology to include spring green-up and plant availability and 2) forage consumption in the active pasture and 3) hunting and recreational demands upon the area. It is expected that general season dates for these events will approximate the following: May 20 – July 1 for early season grazing, July 15 – August 31 for post seed ripe grazing (cattle must be off of the WMA prior to the archery opener).

The lessee will provide labor to install single strand electric poly wire fence on pasture boundaries where permanent fence does not exist to implement the system. The lessee will be responsible for fence maintenance and cattle movement during active grazing seasons. The lessee may access area via motorized travel from neighboring private lands. After each grazing rotation on BTWMA property, the lessee will be required to remove the electric fence each of those years. The electric fence and materials must be removed within 5 days after cattle are removed from the area. Grazing rates charged to the lessee will be $7.50 per AUM, providing the lessee supplies labor and materials for fence construction and removal. An average monthly stocking rate of approximately 400 AUM's is indicated based on available forage, water supplies, pasture size and layout, desired grazing effectiveness and previously observed effectiveness of livestock grazing abilities in the immediate area.

Table 3. BTWMA Polloch Meadows / Upper Cottonwood Grazing Treatments (2012-2017).

YEAR	BTWMA Polloch Meadows	BTMWA Upper Cottonwood
2012	B	A
2013	C	B
2014	A	C
2015	B	A
2016	C	B
2017	A	C
Acres	*475 AC*	*400 AC*

Grazing Treatments:
A = Spring Grazing (May 20-July 1)
B = Post Seed Ripe Grazing (July 15-August 31)
C = Complete Rest

E. ENVIRONMENTAL CHECKLIST

POTENTIAL IMPACTS ON PHYSICAL ENVIRONMENT

ITEM	MAJOR	MOD.	MINOR	NONE	UNK.	COMMENTS ON ATTACHED PAGES
Terrestrial & Aquatic Life & Habitats			X			X
Water Quality, Quantity & Distribution			X			X
Geology & Soil Quality, Stability & Moisture			X			X
Vegetation Cover, Quality, & Quantity			X			X
Aesthetics			X			X
Air Quality				X		
Demands on Environmental Resources of Land, Water, Air, & Energy				X		

F. EXPLANATION OF IMPACTS TO THE PHYSICAL ENVIRONMENT

TERRESTRIAL & AQUATIC LIFE AND HABITATS

While grazing livestock will reduce the amount of forage in the area during the grazing lease period, it is expected that the project will have a positive long-term impact on range and wildlife habitat, especially for elk. In addition, the project is expected to have a long-term positive impact on the habitat of elk, mule deer, whitetail deer and many non-game species of wildlife. The expected positive impact is the result of decadent residual vegetation being removed, which should enhance both fall or spring green-up conditions. Green-up vegetative conditions provide more palatable and attractive vegetation conditions for grazing wildlife. Sufficient forage is available to big game on the remainder of the WMA and the surrounding landscapes to offset any short-term loss of forage due to livestock use. Due to the time period and duration of the proposed grazing lease, impacts to any non-game wildlife in the area should be minimal, although, the reduction in residual cover could have a negative impact on ground nesting birds during dates of use. Two consecutive growing seasons of rest following a grazing treatment will greatly benefit these species in the long-term.

WATER QUALITY, QUANTITY, AND DISTRIBUTION

Cottonwood Creek is the only watershed potentially affected by the proposed grazing treatment. Although the riparian vegetation within the treatment area will have some minor impacts during the 4 weeks of livestock usage, there should be no long-term effects. Hoof action from livestock grazing should provide a positive benefit to riparian soil quality by helping to break down old residual vegetative material, thereby, returning nutrients to the soil. Impacts on Cottonwood Creek water quality, quantity and distribution will be minimal at best. Livestock pressure on private land riparian areas of Cottonwood Creek will be lessened with the addition of the 400 acre BTWMA pasture.

GEOLOGY AND SOIL QUALITY, STABILITY, AND MOISTURE

Some impacts to soil conditions may occur due to trampling, trailing or grazing in localized, high use areas, especially around water tanks. The grazing capacity estimate is believed to be a conservative estimate, so the risk of overgrazing induced erosion should be minimal. Hoof action from livestock grazing should provide a positive benefit to soil quality by helping to break down old residual vegetative material, thereby, returning nutrients to the soil.

VEGETATION COVER, QUALITY, AND QUANTITY

While vegetation cover and quantity will be decreased while livestock are grazing the area, vegetation quality should dramatically increase following grazing treatment as a result of removing residual decadent plant material, allowing for two consecutive growing seasons of rest (Table 3). Plant and soil disturbance as the result of grazing may enhance seed placement, germination, and seedling establishment for both desirable and undesirable plant species.

AESTHETICS

Domestic livestock and signs of livestock use on the BTWMA may be objectionable to some segments of the public. This pasture of the BTWMA generally receives minimal public use during the time period when livestock would be in the pasture because of its location being 5 miles from the nearest public access point. In addition, livestock grazing on other portions of the BTWMA is a common practice, having a rest-rotation grazing system in place with a neighboring landowner since 1996. Cattle will only be in these particular pastures approximately 4 weeks during late spring and early fall two out of every three years (Table 2).

G. ENVIRONMENTAL CHECKLIST

POTENTIAL IMPACTS ON THE HUMAN ENVIROMENT

ITEM	MAJOR	MOD.	MINOR	NONE	UNK.	COMMENTS ON ATTACHED SHEETS
Social Structures and Mores				X		
Cultural Uniqueness and Diversity				X		
Local and State Tax Base and Tax Revenue				X		
Agricultural or Industrial Production				X		
Human Health				X		
Access to & Quality of Recreational and Wilderness Activities			X			X
Quantity and Distribution of Employment				X		
Distribution and Density of Population and Housing				X		
Demands for Energy				X		
Locally Adopted Environmental Plans and Goals				X		
Transportation Network and Traffic Flows				X		

H. EXPLANATION OF IMPACTS TO THE HUMAN ENVIRONMENT

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES

Livestock and livestock sign on FWP Wildlife Management Areas may seem out of place for some segments of the public. However, the WMA has historically, and currently, utilized livestock grazing to enhance vegetative conditions for wildlife species. Most WMA's in Montana have grazing systems in place to improve habitat quality, quantity and conditions for wildlife species, with great success. In addition, the proposed area to be leased for grazing receives minimal public use during the summer, and livestock will be removed prior to the hunting season.

I. DISCUSSION AND EVALUATION OF REASONABLE ALTERNATIVES

1. No action (no grazing lease) alternative:
    - Decadent residual vegetation will remain, and the area will remain unattractive to elk, other game and nongame wildlife species.
    - Elk will likely utilize adjacent private land in large numbers during the winter and spring time periods.
2. Proposed action (provide grazing lease) alternative:
    - Reduction in decadent residual vegetation, which in turn improves forage conditions and availability in the long term.
    - Soil and plant disturbance that will benefit seedling establishment of both desirable and possibly undesirable plant species.
    - Provide for better fall and/or spring green-up vegetation for elk and other wildlife species, thereby reducing elk usage of adjacent private property during the winter and spring.
    - Promote maximum plant production, vigor and nutrient content.

J. ENVIRONMENTAL ASSESSMENT CONCLUSION

It has been determined that no significant impacts to the physical and human environment will result due to the proposed action alternative, therefore an Environmental Impact Statement is not required.

K. SCHEDULED PUBLIC INVOLVEMENT

A public comment period will begin February 24, 2012 through March 15, 2012. Duration for the comment period for the Environmental Assessment is 21 days. A public hearing is not scheduled. Written comment should be delivered to the following address:

Montana Fish, Wildlife & Parks
Wildlife Division - % Beartooth WMA
4600 Giant Springs Rd.
Great Falls, MT 59405

Or, E-Mail: cloecker@mt.gov (Include Beartooth WMA in Subject Heading)

Exhibit A. BTWMA Polloch Meadows / Upper Cottonwood Creek Grazing Areas

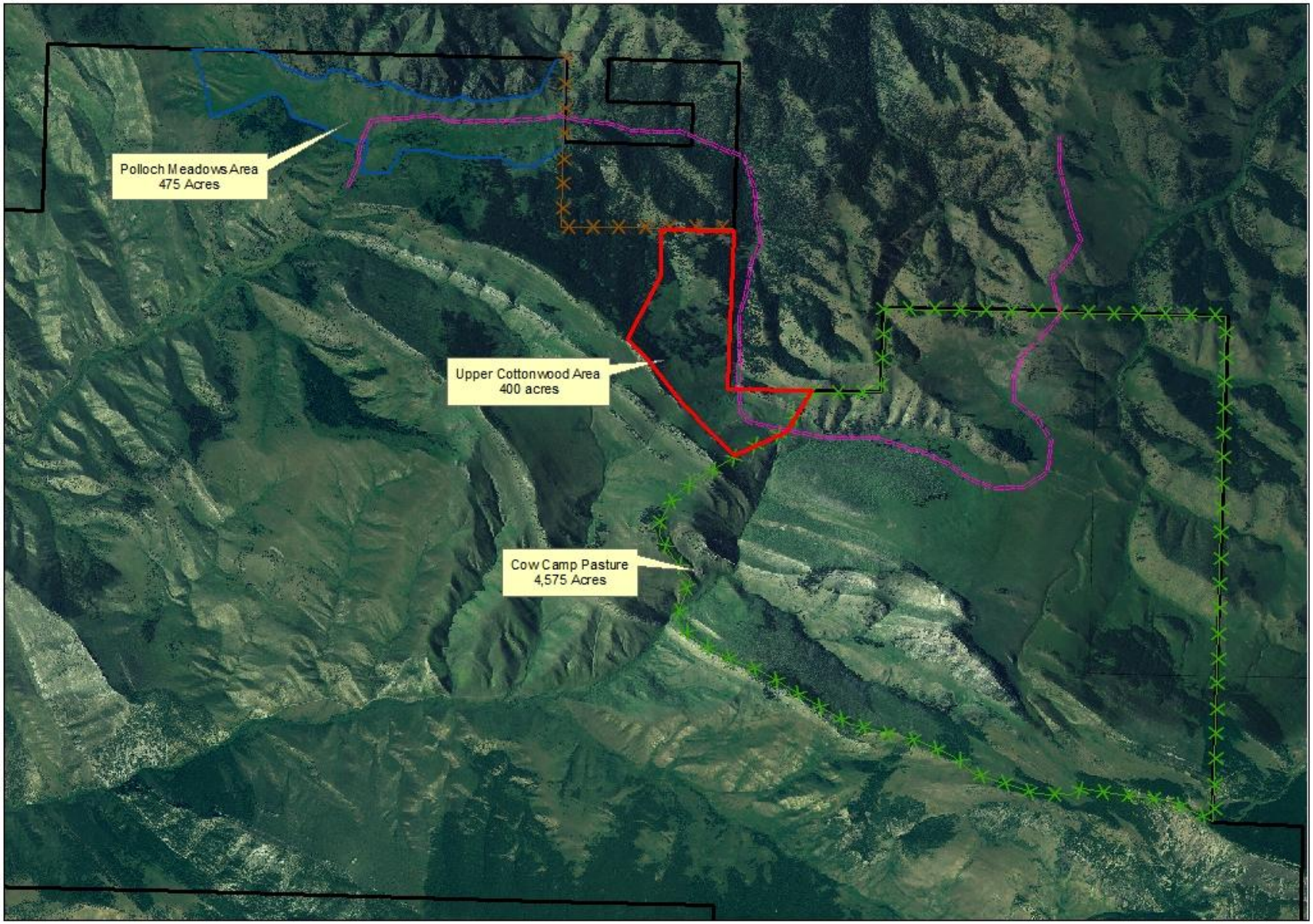

Exhibit B. BTWMA Polloch Meadows / Upper Cottonwood Creek Grazing Areas